

ABSTRACT OF THE DISCLOSURE

A method and an apparatus enabling to produce a gas-containing fullerene at higher yield are disclosed. The apparatus is characterized by comprising a plasma generation chamber (611) for generating a plasma, which chamber has a gas supply port (650) for supplying a gas (630) containing object atoms to be contained in fullerenes into the chamber, and a vacuum vessel (610) communicated with the plasma generation chamber (611) for forming a plasma flow (660) into which fullerenes (651) are introduced; by further comprising a means (energy controlling means) (604) for controlling the energy of electrons in the plasma flow, which means is provided in a position near the plasma generation chamber (611) in the vacuum vessel (610); and further comprising a potential body (609) in the downstream for forming gas-containing fullerenes by adjusting the flow rate of the object atom ions so that the object atom ions are combined with fullerene ions.